

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
David A. Beck	) Group:
Serial No.:	)
Filed: November 4, 2003	) Examiner:
Title: SEMIPERMEABLE MEMBRANE WITH	)
INTERCOMMUNICATING PORES FOR	)
PRESSING APPARATUS	)

INFORMATION DISCLOSURE STATEMENT

MS DD  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Sir:

Applicant wishes to bring to the attention of the Examiner the documents identified on the attached form PTO-1449. Applicant respectfully requests that these documents be made of record in the present application.

Polish Patent Document No. 85537 relates to a paper machine for the production of filter board, consisting of an inlet and a wire section that is equipped with a blow-through device located above the wire and elements located below the wire for discharging the water-air mixture from the press and dryer components, designed in such a way that an air press consisting of two double rolls is located behind the wire section, with the diameters of the one double roll being different from that of the other one and each roll touching both neighboring rolls of the other pair so that a blowing air chamber is created between them, and drum dryers being located at the end of the paper machine, of which three of them -equipped with air blowing chambers and perforated rolls which also house the suction boxes-would be advantageous.

Polish Patent Document No. 141 560 relates to a paper machine for the production of filter paper and board made of hydrophobic fibers, consisting of an inlet located above the wire section and equipped with an inclined wire with suction boxes inside, a dewatering unit as well as a web conveying device and designed in such a way that the dewatering unit is equipped with two wires for providing guidance for the web, with the top wire being equipped with a perforated roll in that place where it touches the bottom wire and with air-blowing chambers being installed in the top wire, each

of them connected with a source of compressed air, of which each of them creates a higher pressure than the previous source.

European Document No. EP 0 473 969 A1 relates to a ribbon for use in paper machines, in particular in wet presses having a lengthened press gap, has a pliable, liquid-impermeable ribbon layer, which is smooth on its rear side and into whose front side a textile product is inserted, only partly with the formation of open cavities. In order that this ribbon is distinguished on the one hand by high flexibility and a large cavity volume for removal of water, but on the other hand an improved bond between textile product and ribbon layer is achieved, the textile product (5) has a supporting web (6) and a fibre layer (9) fixed thereto, which is arranged on the side adjacent to the ribbon layer (2), and the textile product (5) is inserted in the ribbon layer (2) only with this fibre layer (9) and the supporting web (6) lies outside the ribbon layer (2).

German Patent DD 222 680 A1 relates to a method for dewatering a fiber web in paper, cardboard, paper board and stock dewatering machines by means of overpressure. It is the objective of the current invention to create a method for dewatering of fiber webs, that permits intensifying of dewatering and at the same time avoiding the disadvantages that occur in the utilization of vacuum. The current invention meets this objective in that the fiber web that is to be dewatered is restrained and guided by conventional suction devices, between two supporting surfaces. The medium stream serving the dewatering process is directed at excess pressure and by means of suitable devices (i.e. blow box or similar) through the combination of "support material-web-support material". The blow boxes are divided into one or several chambers and sections – viewed in direction of travel of the fiber web, and transversely to it – in order to influence the moisture profile by pressure and/or temperature controlled medium infeed.

European Patent 0 304 561 discloses the dewatering of paper web (1) takes place by means of a flow steam led through the paper web (1) in a press nip (2) between two pressing surfaces (3 and 4) under such pressure that at least part of the paper web (1) becomes saturated. In order to effect this flow of steam, means are introduced in the area of the press nip (2) to guide the flow of stream from the upper to the under surface of the paper web (1) running through the press nip (2) with simultaneous removal from the undersurface of the paper web. In one embodiment, the means are an upper roll (3) with a perforated jacket (5), through which the externally produced steam is led under pressure into the press nip (2), and a lower roll (4) with a perforated jacket (6), through which the steam, together with the liquid expressed from the paper web, is sucked out and removed.

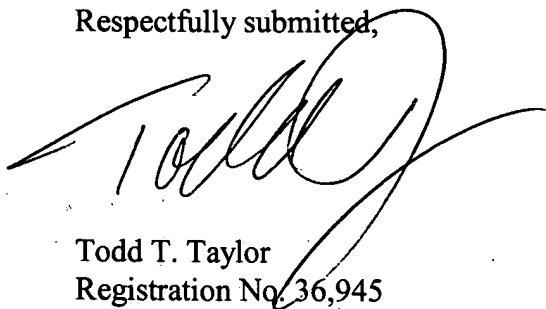
A copy of two of the documents is enclosed.

VOI0156.DIV

A copy of the rest of these documents can be found in the parent application, i.e., U.S. Patent Application Serial No. 09/409,794.

In the event Applicant has overlooked the need for a payment of fee, or additional payment of fee, or have overpaid a fee, Applicant hereby conditionally petitions therefor and authorizes that any charges or credits be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS DD, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: November 4, 2003.

Todd T. Taylor, Reg. No. 36,945

NAME OF REGISTERED REPRESENTATIVE



SIGNATURE

November 4, 2003

DATE

		ATTORNEY DOCKET NO.: VOI0156.DIV	SERIAL NO:
INFORMATION DISCLOSURE STATEMENT		APPLICANT: David A. Beck	
		FILING DATE: November 4, 2003	GROUP:

## U.S. PATENT DOCUMENTS

Examiner Initial *		Document No.	Date	Name	Class	Subclass	Filing Date
	AA	5,700,356	12/97	Lefkowitz	162	358.1	January 19, 1996
	AB	5,584,126	12/96	Ensign, et al.	34	444	February 6, 1996
	AC	5,625,961	5/97	Ensign, et al.	34	117	June 4, 1996
	AD	5,274,930	1/94	Ensign, et al.	34	23	June 30, 1992
	AE	4,888,096	12/89	Cowan, et al.	162	35R	December 30, 1988
	AF	4,675,079	6/87	Webster	162	360.1	May 21, 1985
	AG	4,559,106	12/85	Skytta, et al.	162	358	May 8, 1984
	AH	4,173,249	11/79	Holkko, et al.	162	360 R	July 6, 1978
	AI	4,172,910	10/79	Rotar	427	243	March 28, 1978
	AJ	4,124,942	11/78	Ohis, et al.	34	115	April 8, 1976
	AK	3,808,096	4/74	Busker, et al.	162	358	February 16, 1972

## FOREIGN PATENT DOCUMENTS

							Translation	
		Document No.	Date	Country	Class	Subclass	Yes	No
	AL	85537	12/74	Poland	D21F 9	00		X
	AM	1,599,347	9/81	French	D21F 3	04		X
	AN	141 560	10/86	Poland	D21F 9	02		X
	AO	WO 99/23296	5/99	PCT	D21F 1	48		X
	AP	WO 99/23301	5/99	PCT	D21F 11	14		X

## OTHER REFERENCES (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

		TAPPI, Characterization of Wet Felts, TIP 0404-20, 1976, pp 1-3.
		Joseph R. Pounder, Elementary Mathematical Models of Displacement Pressing, TAPPI Journal, February, 1987, pp 97-100.
		Wlodzimierz Kawka and Edward Szwarcstajn, Some Results of Investigations on the Equipment for Intensive Dewatering and Drying of Porous Papers, Technical University of Lodz/Poland, Paper No. 31, pp 153-169.

EXAMINER:

DATE CONSIDERED:

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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## U.S. PATENT DOCUMENTS

Examiner Initial *		Document No.	Date	Name	Class	Subclass	Filing Date
	AA	4,468,287	8/1984	Dahl	162	358	December 14, 1981
	AB	3,974,026	8/1976	Emson et al.	162	358	February 28, 1974
	AC	3,970,515	7/1976	Busker	162	360	April 7, 1975
	AD	4,675,079	6/1987	Webster	162	360.1	May 21, 1985
	AE	3,360,394	12/1967	Griffin et al.	442	76	
	AF	4,259,394	3/1981	Khan	428	229	
	AG	4,429,000	1/1984	Naka et al.	428	265	
	AH	4,539,255	9/1985	Sato et al.	428	252	
	AI	4,554,148	11/1985	Gomi et al.	423	447.1	
	AJ	4,868,032	9/1989	Eian et al.	428	198	
	AK	5,419,953	5/1995	Chapman	428	284	

## FOREIGN PATENT DOCUMENTS

							Translation	
		Document No.	Date	Country	Class	Subclass	Yes	No
	AL	DD222680A1	5/1985	Germany	F26B	5/00		X
	AM	EP0304561	3/1989	Europe	D21F	3/02		X
	AN	WO 95/25200	9/1995	PCT	D21F3	02		X
	AO	EP 0 473 969 A1	3/1992	Europe	D21F3	02		X
	AP							

## OTHER REFERENCES (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

		Thomas Pfluff and Werner Stahl, Dewatering by Mechanical Compression Followed by Application of Differential Gas Pressure, Chemie-Ingenieur-Technik 64, No. 3, 1992, pp 298-299.
		Jeffrey D. Lindsay, Displacement Dewatering to Maintain Bulk, Helsinki Symposium on Alternate Methods of Pulp and Paper Drying, Helsinki, 1991.

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Examiner Initial *		Document No.	Date	Name	Class	Subclass	Filing Date
	AA	5,816,742	10/1998	Cordewener	405	43	
	AB	6,230,901	5/2001	Ogata et al.	264	115	
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

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							Translation	
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	AL							
	AM							
	AN							
	AO							
	AP							

## OTHER REFERENCES (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)


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